

1. A method of producing an antibody to a target antigen in an animal, comprising contacting said animal with a genetically-matched cell containing a heterologous nucleic acid, said nucleic acid encoding said target antigen.

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2. The method of claim 1, wherein said animal and said cell are syngeneic at major histocompatibility complex (MHC) loci.

3. The method of claim 1, wherein said cell expresses a gene product encoded by said nucleic acid.

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4. The method of claim 3, wherein said gene product is expressed on a surface of said cell.

5. The method of claim 1, wherein said animal is adult and said cell is obtained from the same or different adult animal.

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6. The method of claim 1, wherein said animal is a member of an avian species.

7. The method of claim 6, wherein said animal is a chicken.

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8. The method of claim 1, wherein said animal is a rodent.

9. The method of claim 1, wherein said animal is a member of a murine species.

10. The method of claim 9, wherein said animal is a mouse.

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11. The method of claim 8, wherein said animal is a rabbit.

12. The method of claim 1, wherein said cell is an undifferentiated stem cell.

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13. The method of claim 1, wherein said cell is a differentiated cell.

14. The method of claim 1, wherein said cell is a not an embryonic cell.

15. The method of claim 1, wherein said cell is derived from a mature animal.

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16. The method of claim 1, wherein said cell is a spleen cell.

17. The method of claim 1, wherein said cell is a bone marrow cell.

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18. The method of claim 1, wherein said cell is immortalized.